



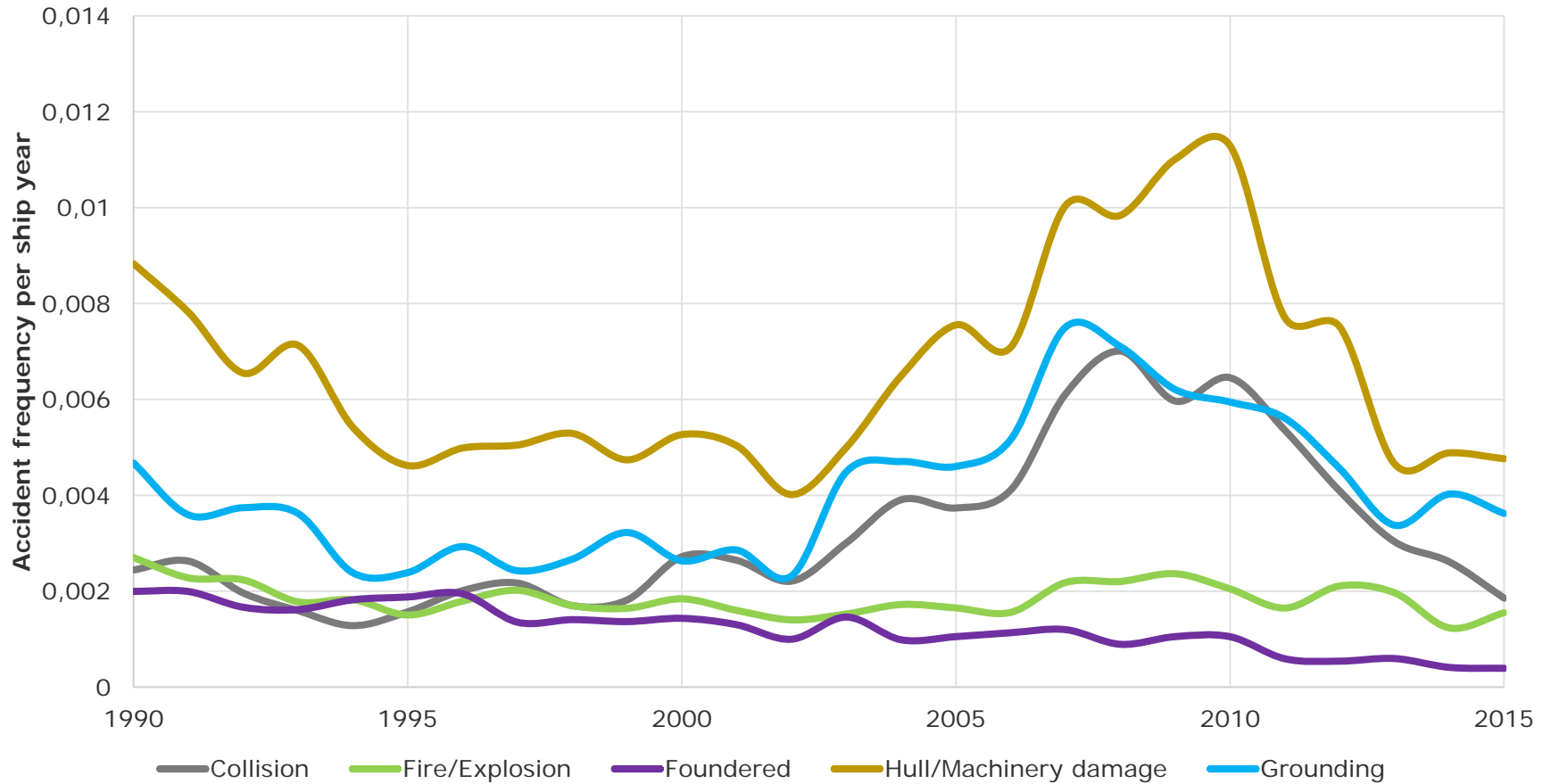
MARITIME SAFETY SURVEY

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The safety level in shipping has changed little over the last 20 years

Serious accidents



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All cargo carrying ships (dry cargo/passenger, tankers and bulk carriers)

What is the status of safety in maritime?

Average of
900 lives
lost
at sea every year
in ship accidents

10x
higher
fatality rate in
maritime than
for industry
workers

600-900
fatalities are
caused by
occupational
accidents²

IMO aims to
reduce the
fatality rate (for
ship accidents)
to **below**
500

DNV GL
ambition to
reduce the
fatality rate by
90%

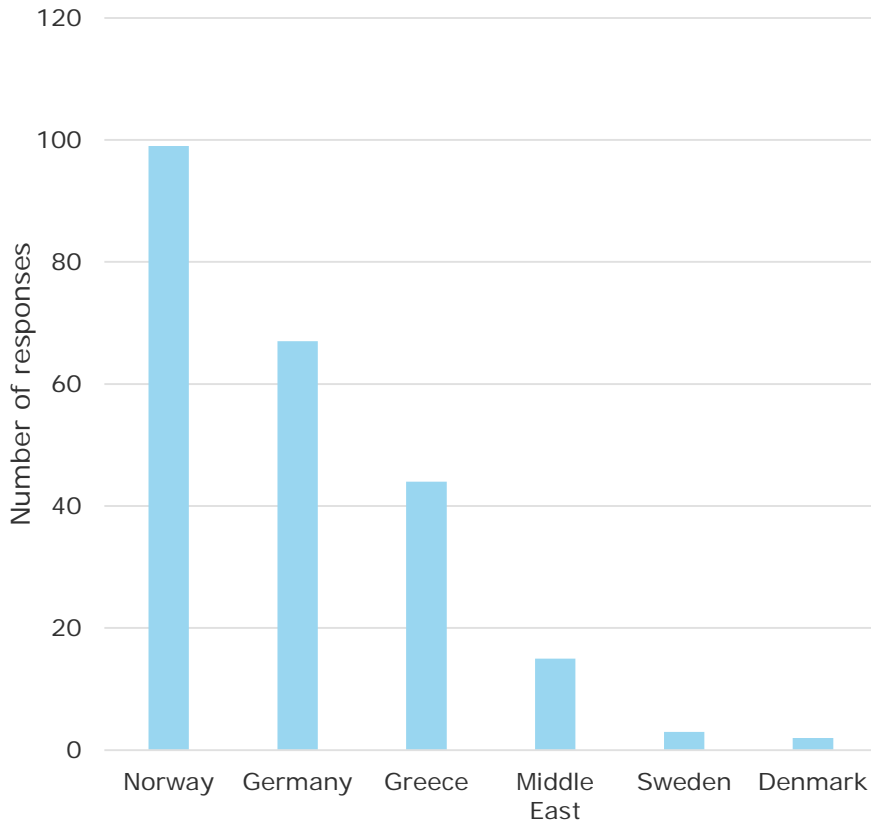
1) IHS Fairplay 2003-2012

Ungraded² EMSA Annual Overview of Marine Casualties and Incidents 2014 and DNV GL Future of shipping (2014)

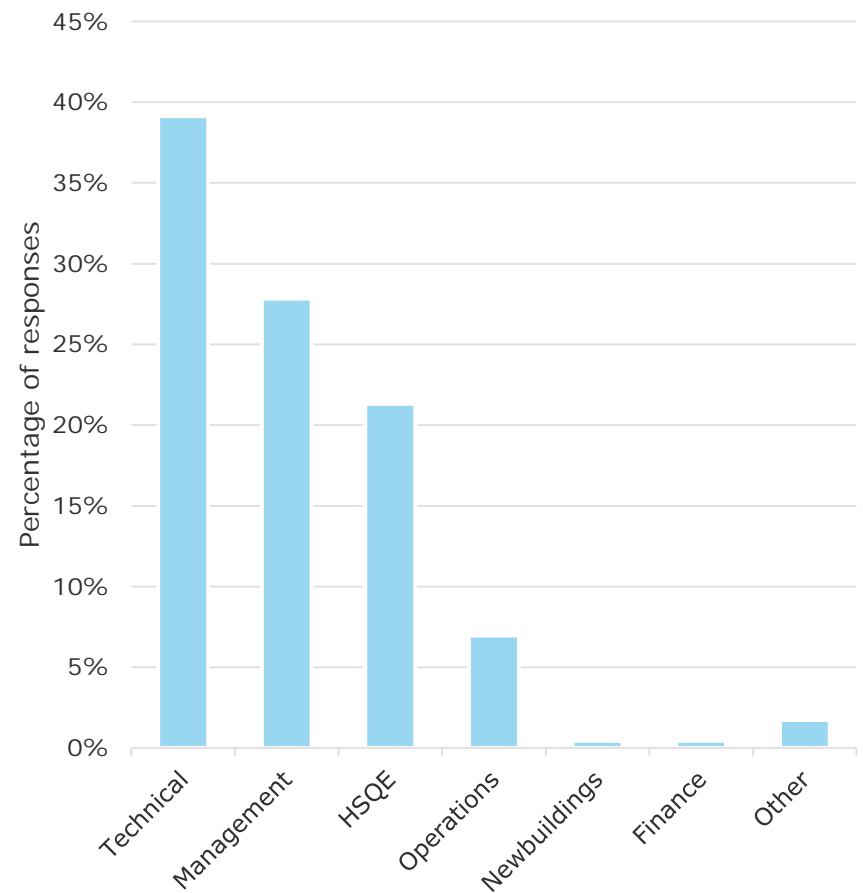
WHO WERE THE RESPONDENTS?

Most respondents had a technical or managerial responsibility, and were based in Norway and Germany

Country of respondents



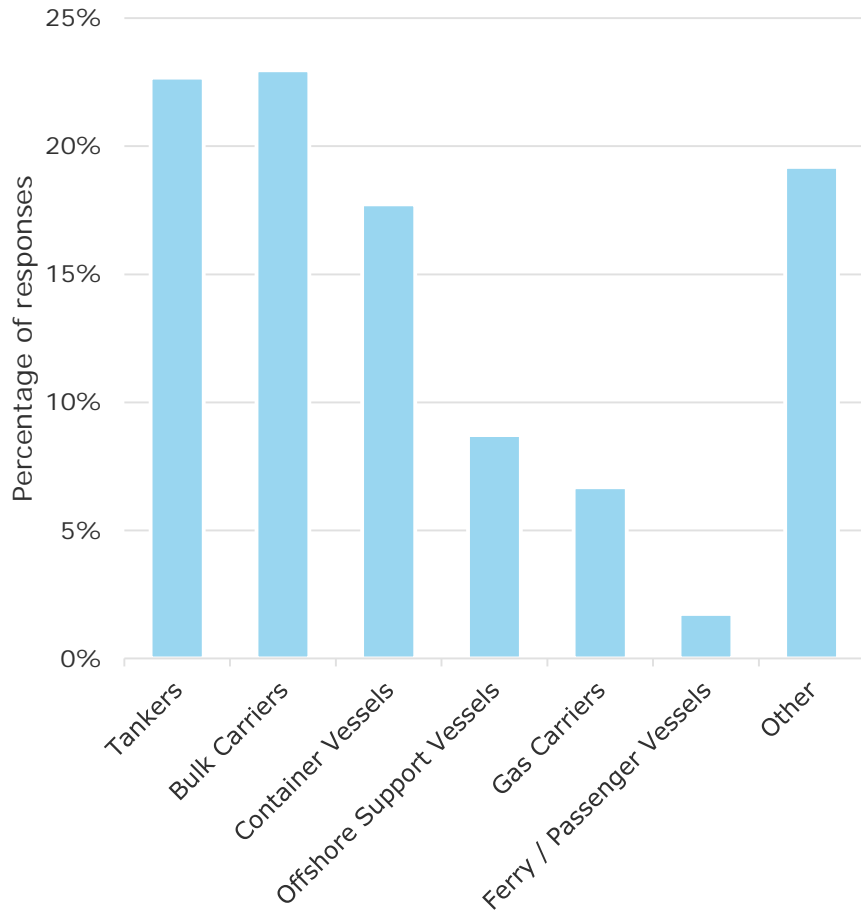
Area of responsibility of respondents



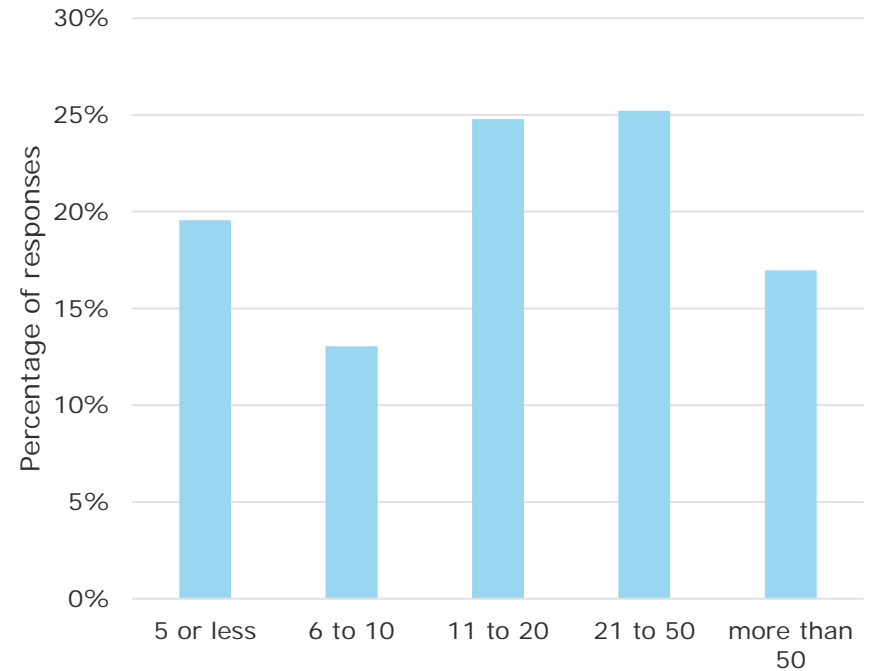
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The respondents operated mainly tankers, bulkers and container vessels

The survey includes owners and operators of these shipping types



Number of vessels operated / owned by respondents



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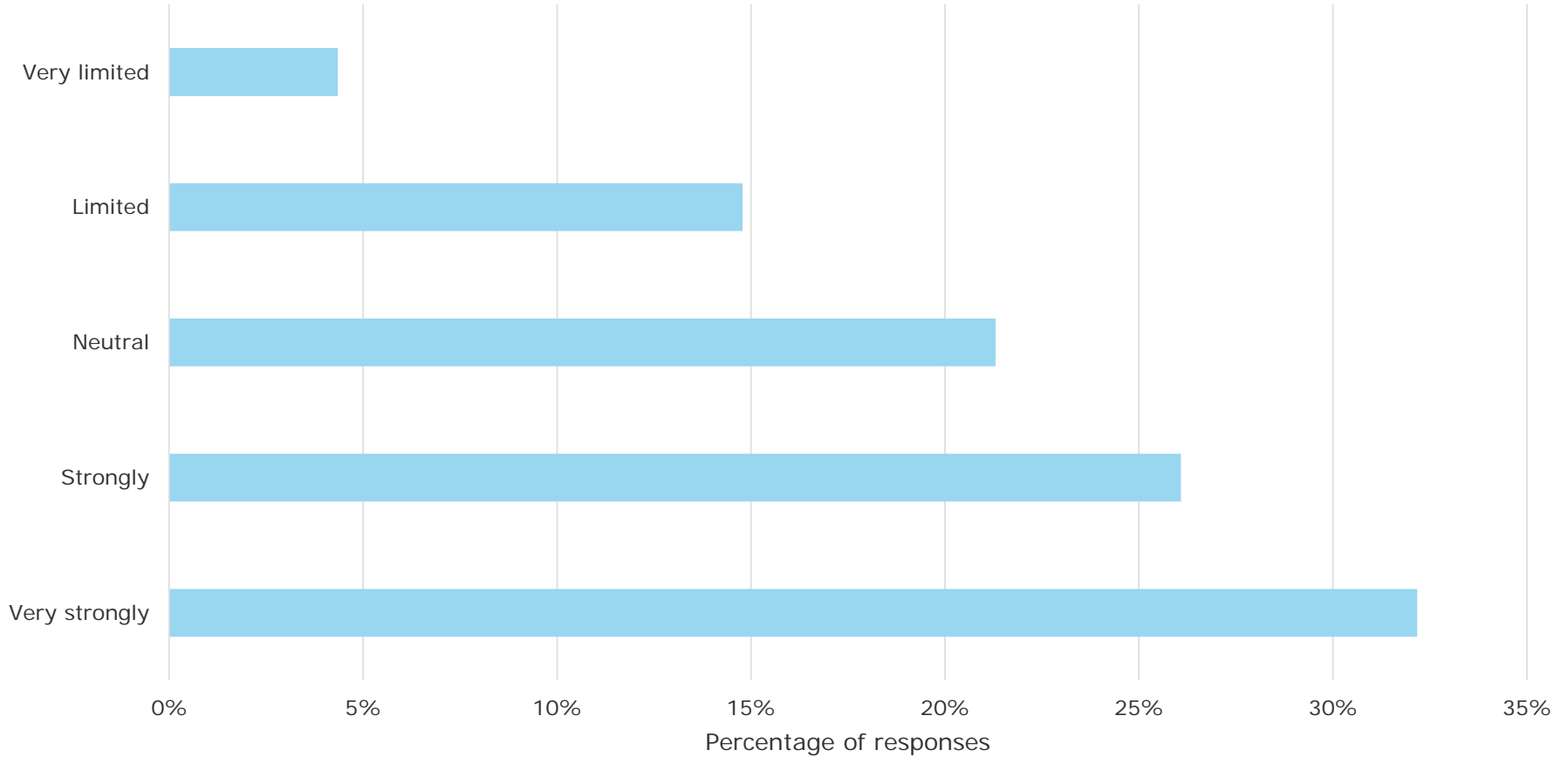
A photograph of a person on the deck of a ship, looking through binoculars. The sun is low on the horizon, creating a warm, golden glow over the ocean. The ship's railing and part of the deck are visible in the foreground.

SAFETY IS A MAJOR CONCERN

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Safety at sea is a major concern

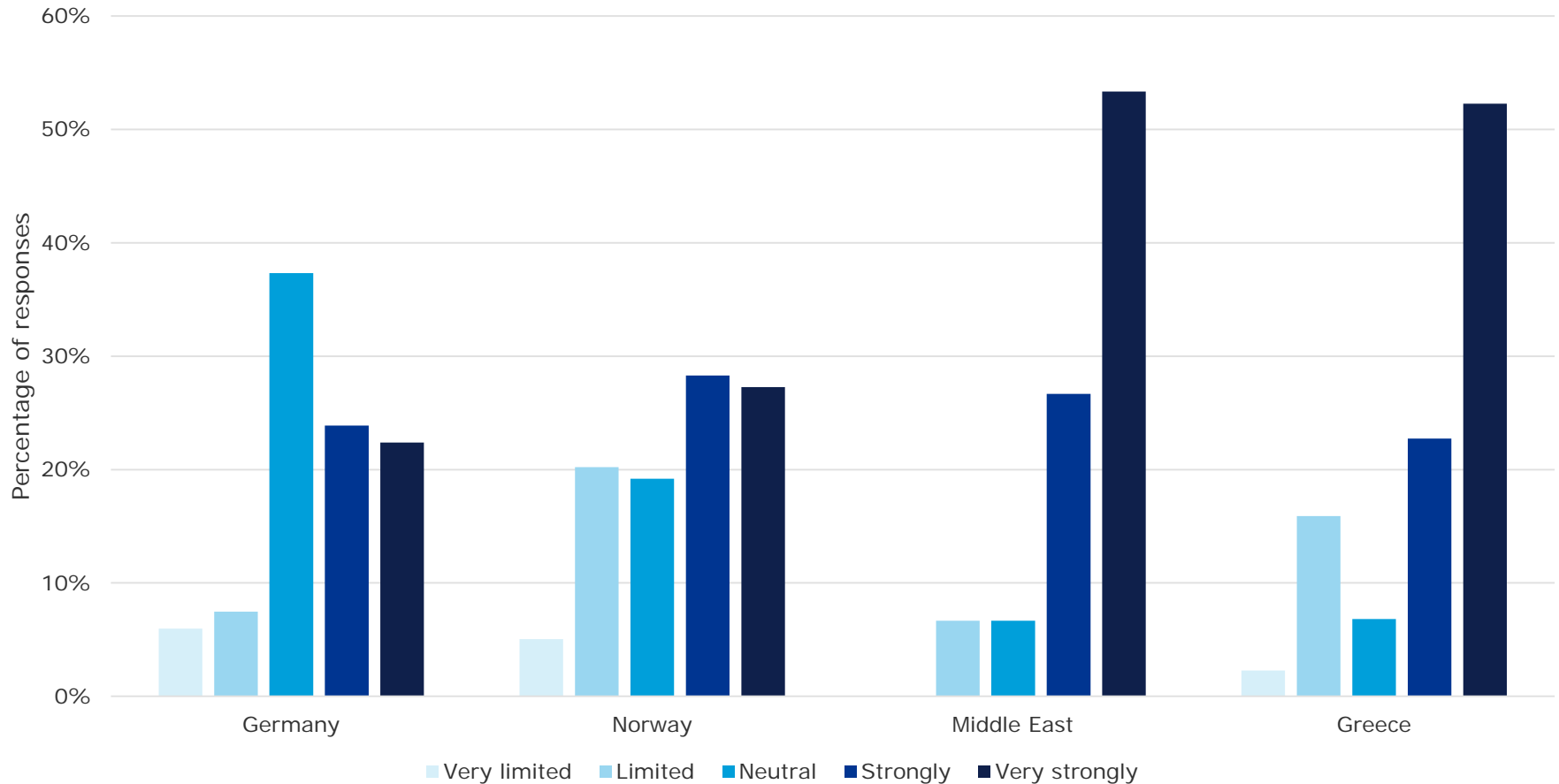
To what extent are you concerned about the fatality rate in shipping?



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But separating on countries shows differences in the degree of concern

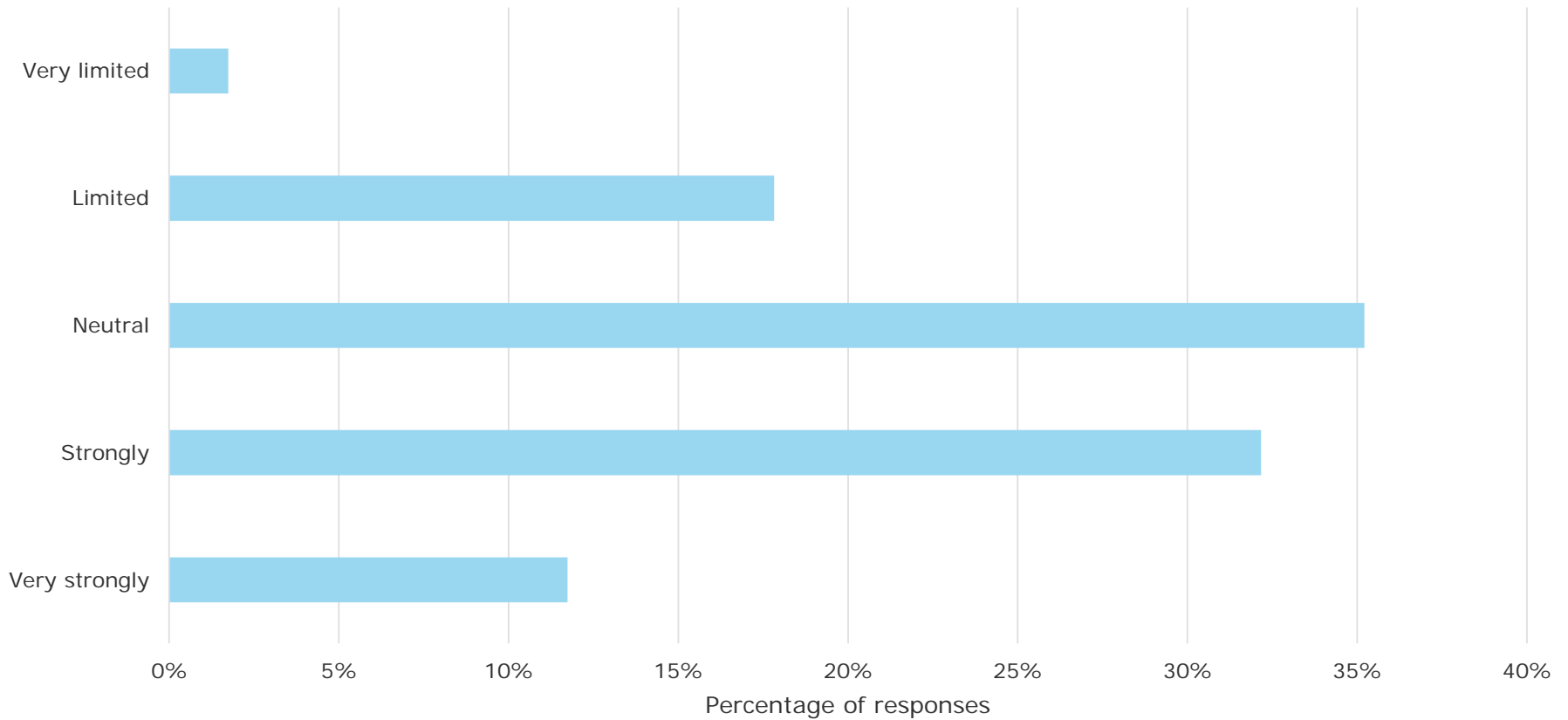
To what extent are you concerned about the fatality rate in shipping?



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Seafarers are considered somewhat less safe than land-based workers

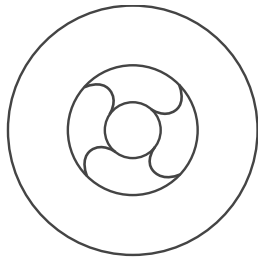
To what extent do you consider seafarers to be safe at work when compared to land-based industry workers?



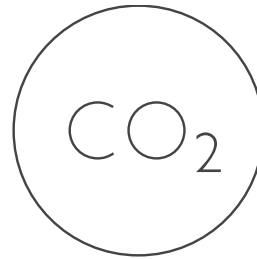
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DNV GL's ambitions for sustainable shipping* - is it achievable?



90%
reduction in
fatalities



60%
reduction in CO₂
emissions

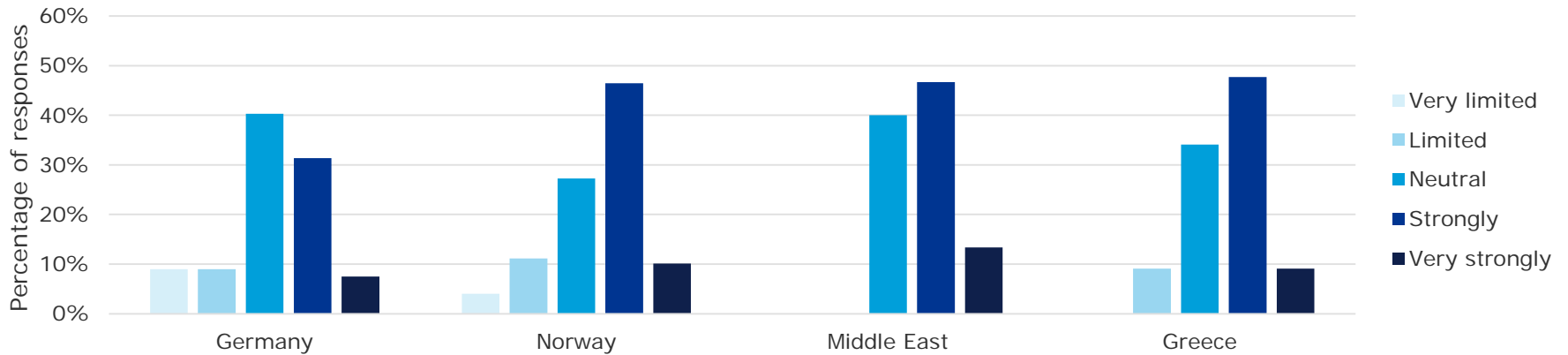


0%
increase in
freight rates

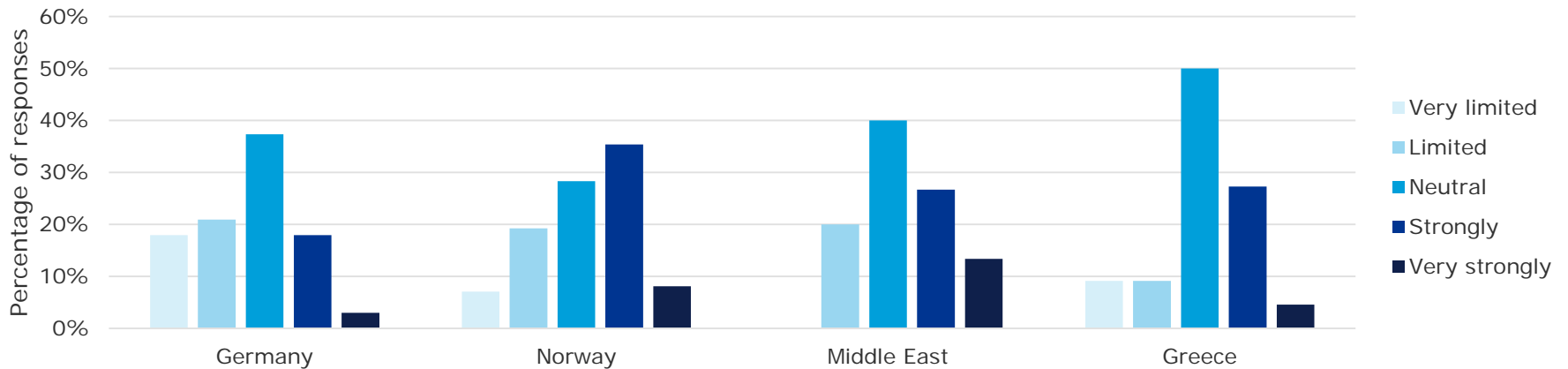
*DNV GL report: "Future of Shipping" 2014
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Respondents are positive to the outlook of reducing fatality rates, but perhaps not while maintaining current freight rates

To what extent do you believe DNV GL's ambition of reducing the fatality rate in shipping by 90% is achievable?



...while maintaining freight rates at present levels?



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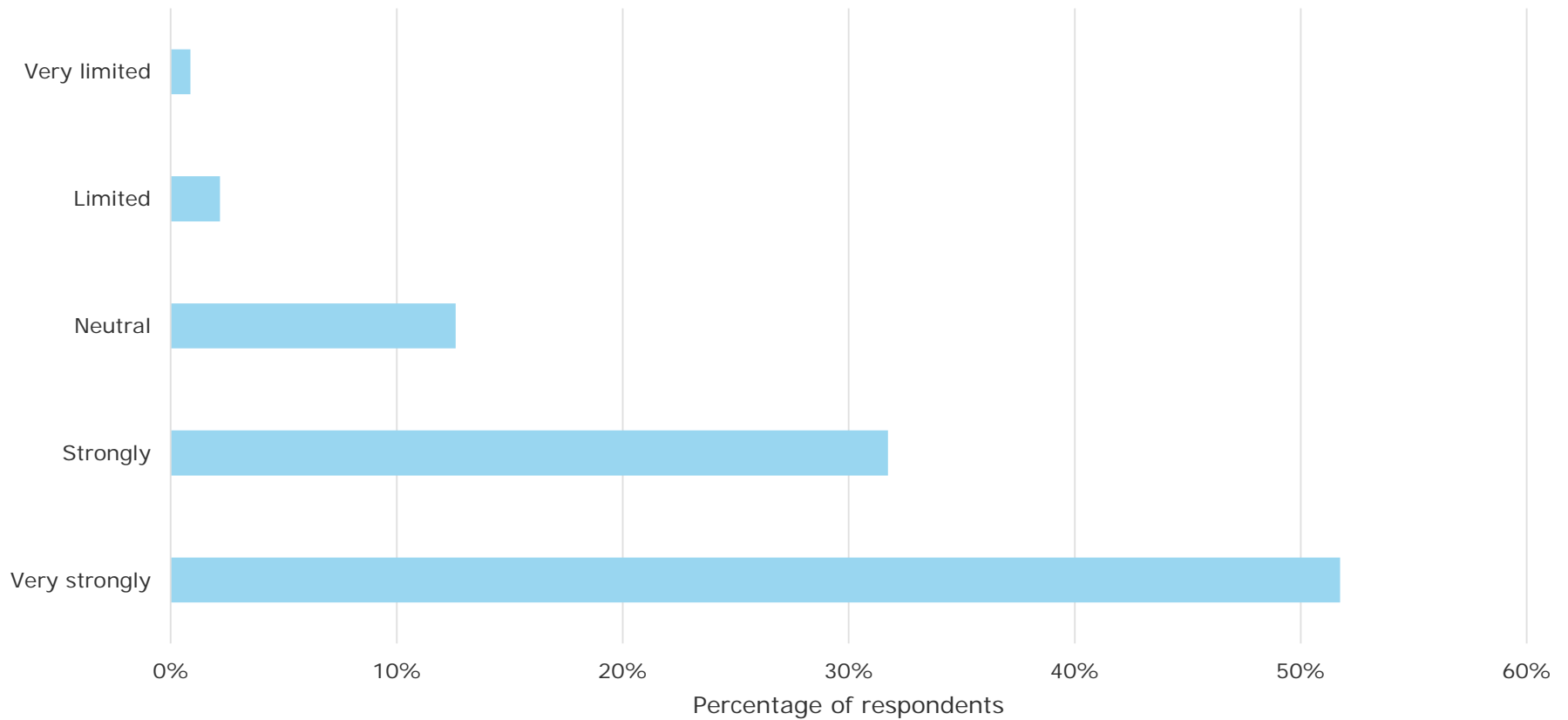


SAFETY AS A COMPETITIVE DIFFERENTIATOR

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Over 80% of respondents consider excellent safety performance a strong or very strong competitive advantage in today's market

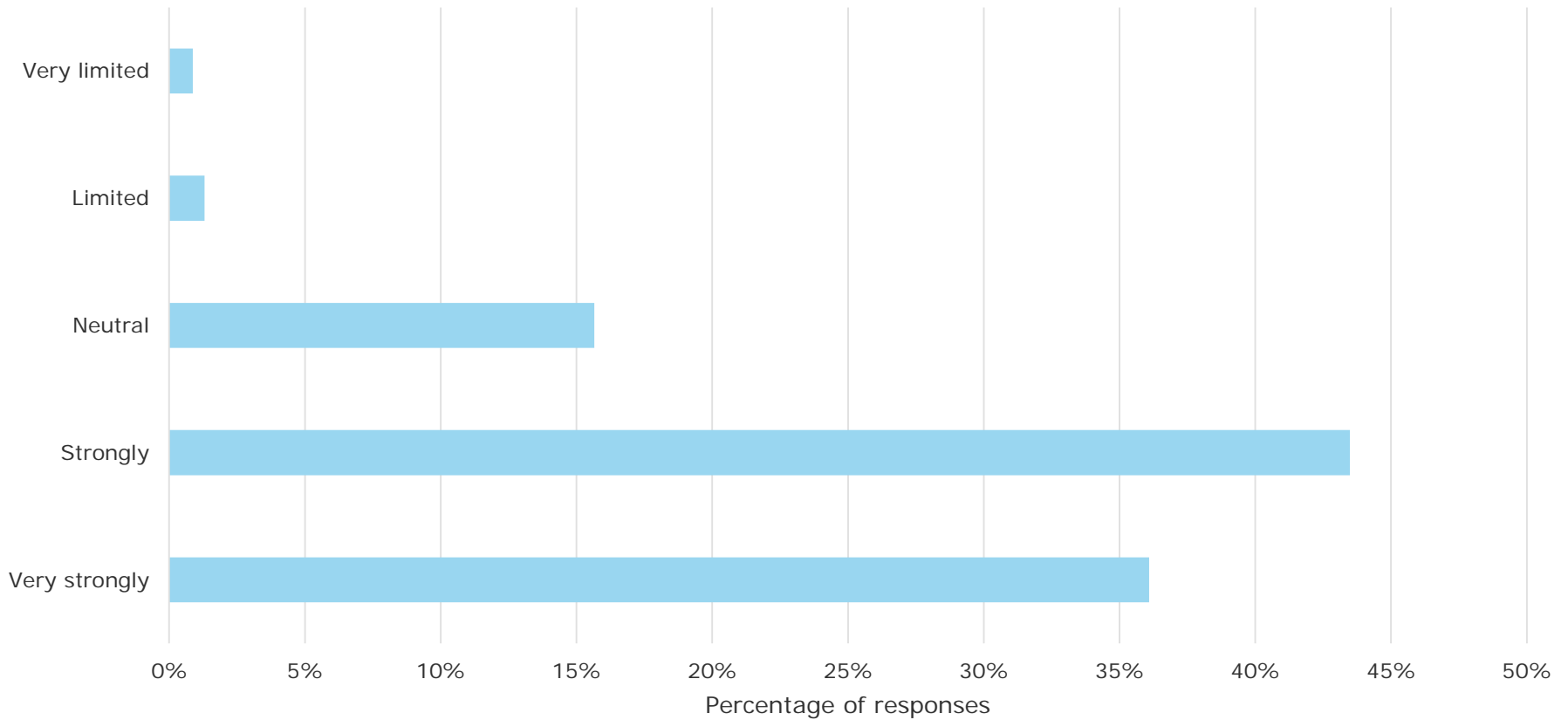
To what extent is excellent safety performance a competitive advantage for your company?



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Common safety rules and regulations are also considered important, by approximately 80% of respondents

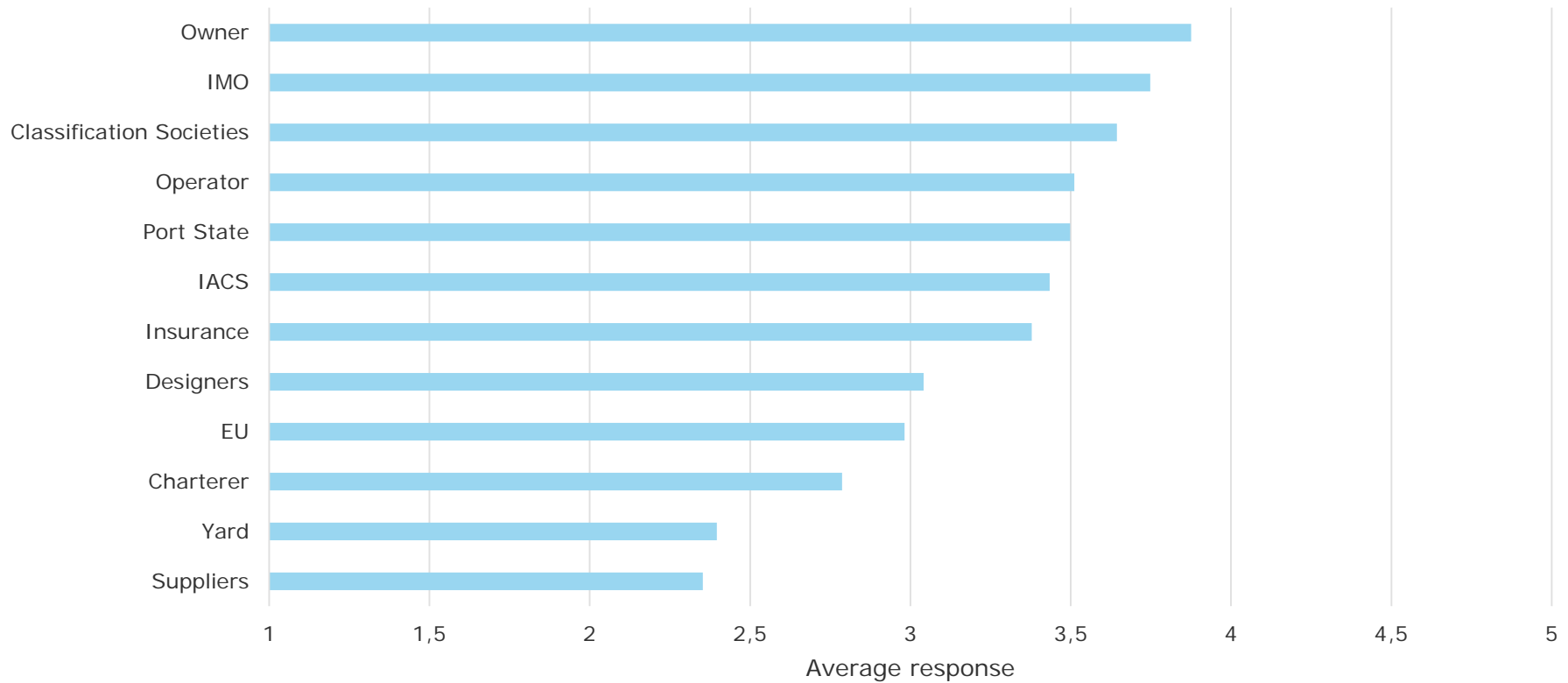
To what extent do you consider common safety rules and regulations important for shipping?



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Owners, IMO and classification societies are thought to be the most important drivers of safety at sea

To what extent do you consider the following stakeholders to be driving safety at sea?
(1=very limited, 5=very strongly)



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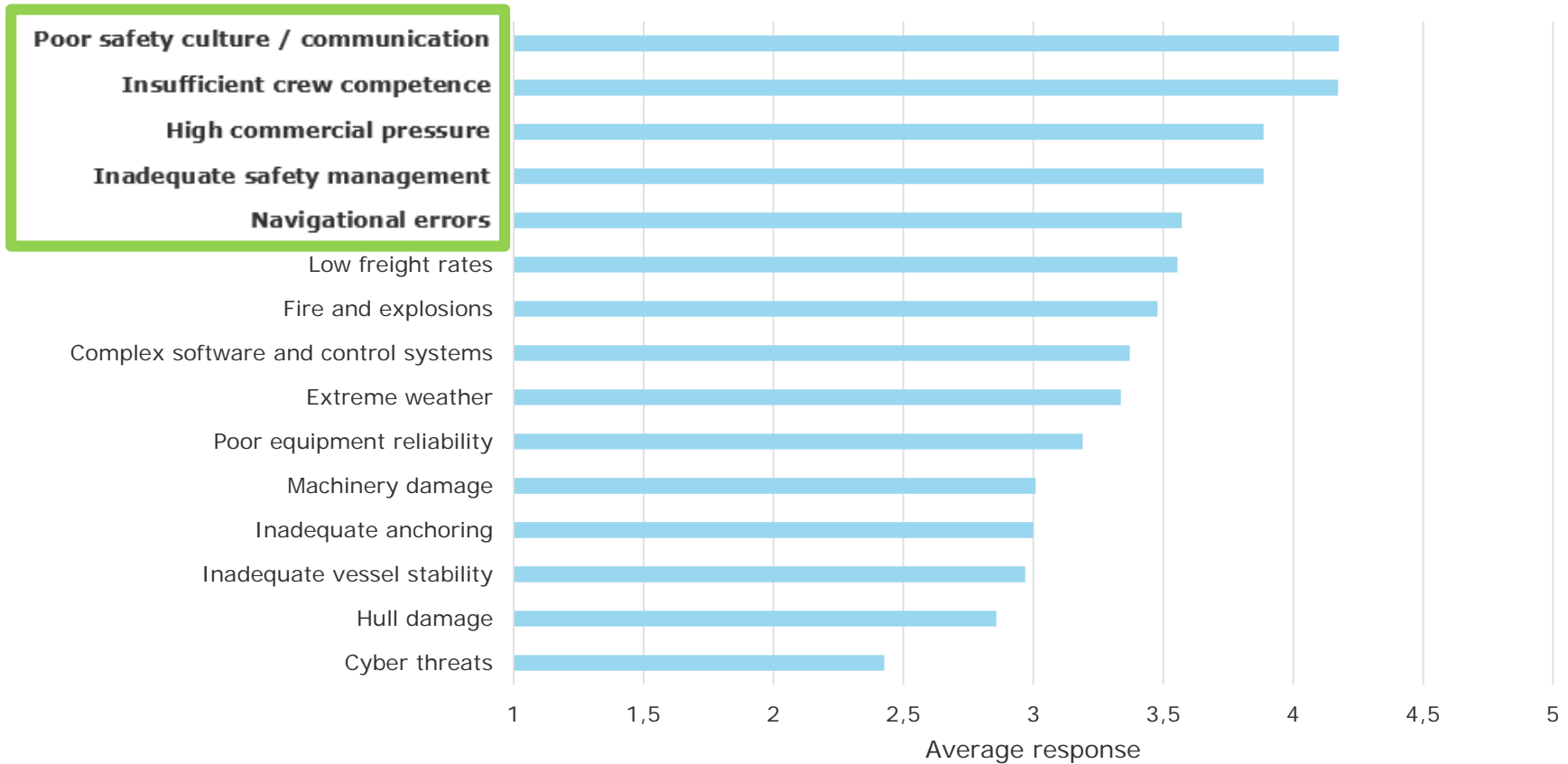
A person wearing a dark jacket and a white hard hat stands on the deck of a ship, looking out at the ocean. The deck is white with various pieces of equipment, including a large white winch and a blue and white propeller. The sky is a clear blue with several birds flying. The text "THE CREW IS THE KEY" is overlaid in the center of the image.

THE CREW IS THE KEY

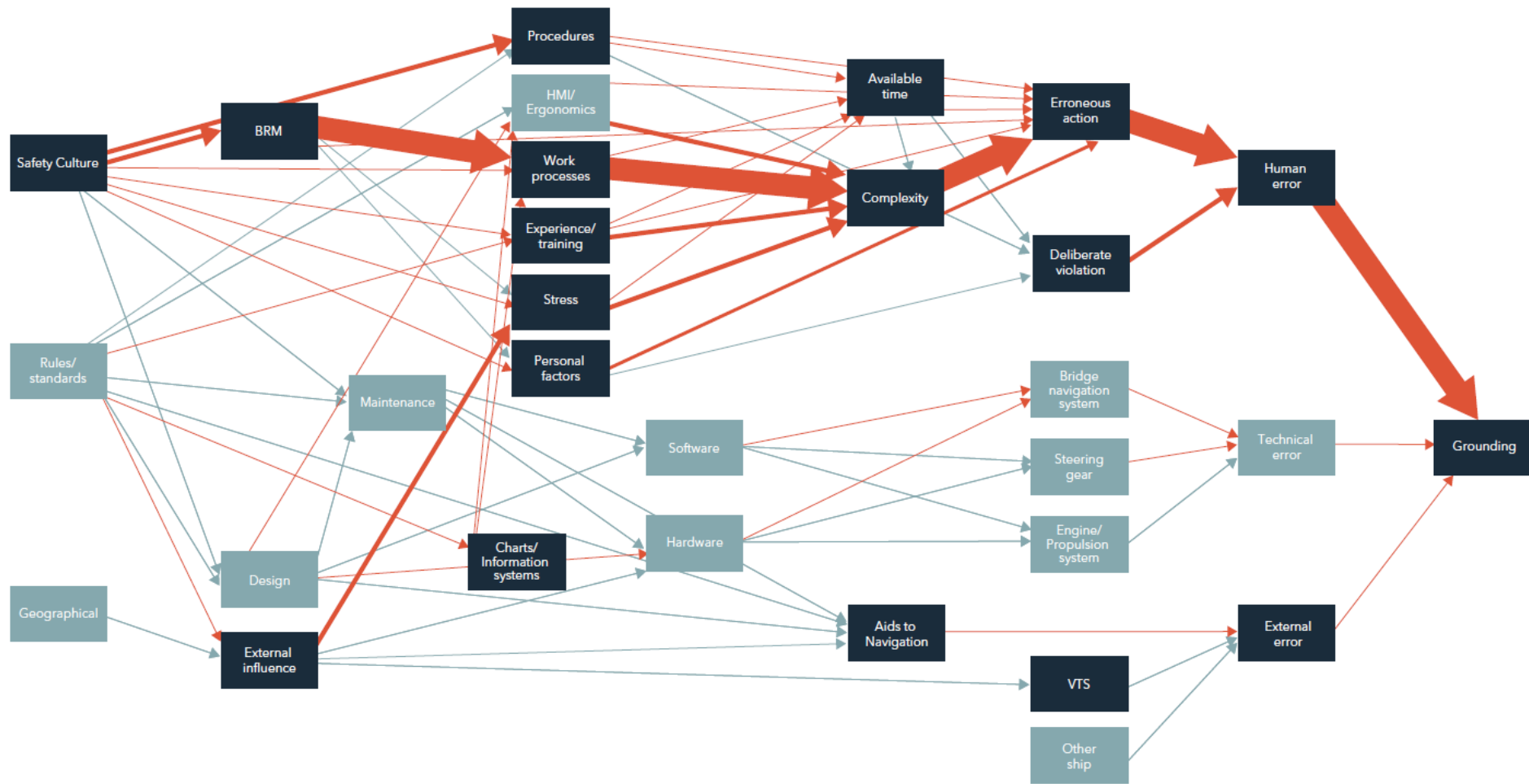
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Human factors, commercial pressure and inadequate safety management are the industry's top safety concerns

To what extent do you consider the following issues to be a safety concern in shipping? (1=very limited, 5=very strongly)



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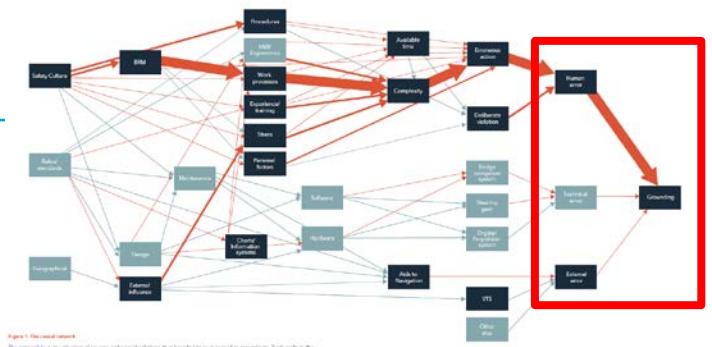
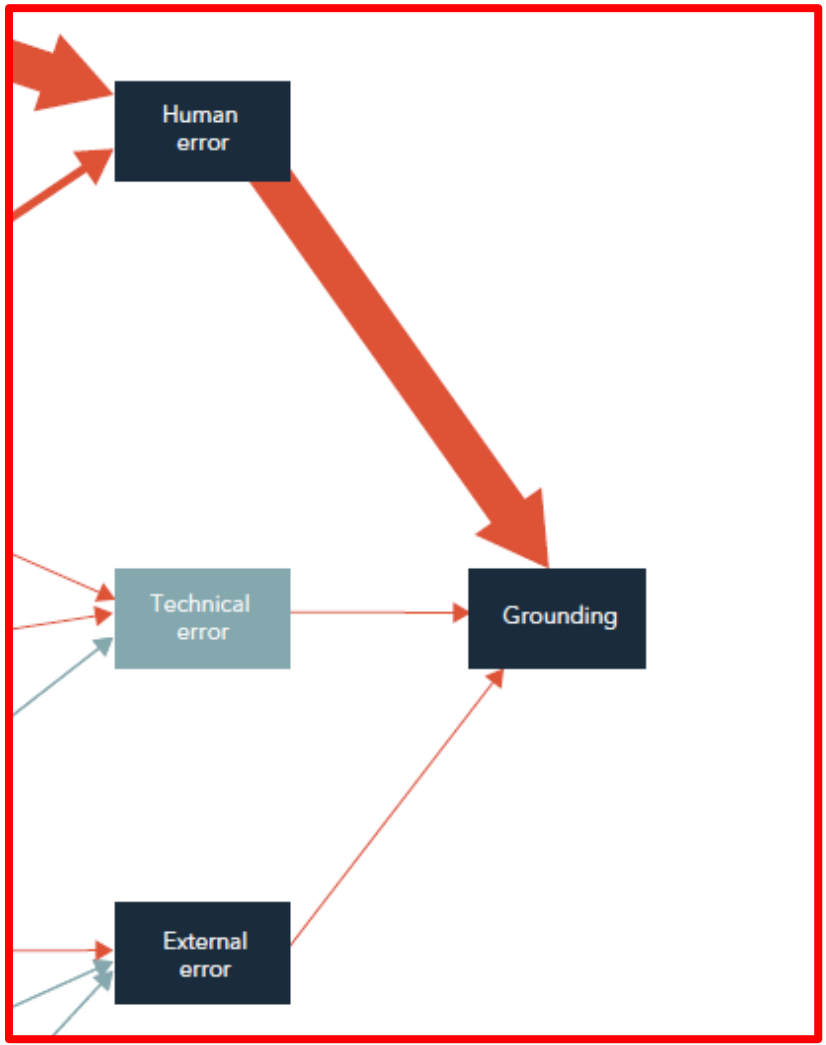


Figure 1: The causal network



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One way to improve is Safety culture

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What makes up Safety Culture?

Safety Culture

The product of individual and group values, attitudes, perceptions, competencies and patterns of behaviour that can determine the commitment to, and the style and proficiency of an organisation's management of safety.



Safety Climate

'how people feel'
Individual and group values, attitudes and perceptions.

Behaviour

'what people do'
Safety-related actions and behaviours.

Organisation

'what the organisation has'
Policies, procedures and management systems.



Attitude and climate surveys



Safety audits and safety performance statistics

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Mixed methods: quantitative and qualitative methods

Survey

- Suitable for benchmarking/comparative purposes
- Economical assessment tool
- Answers "what" but ***not always*** "why"

Interview

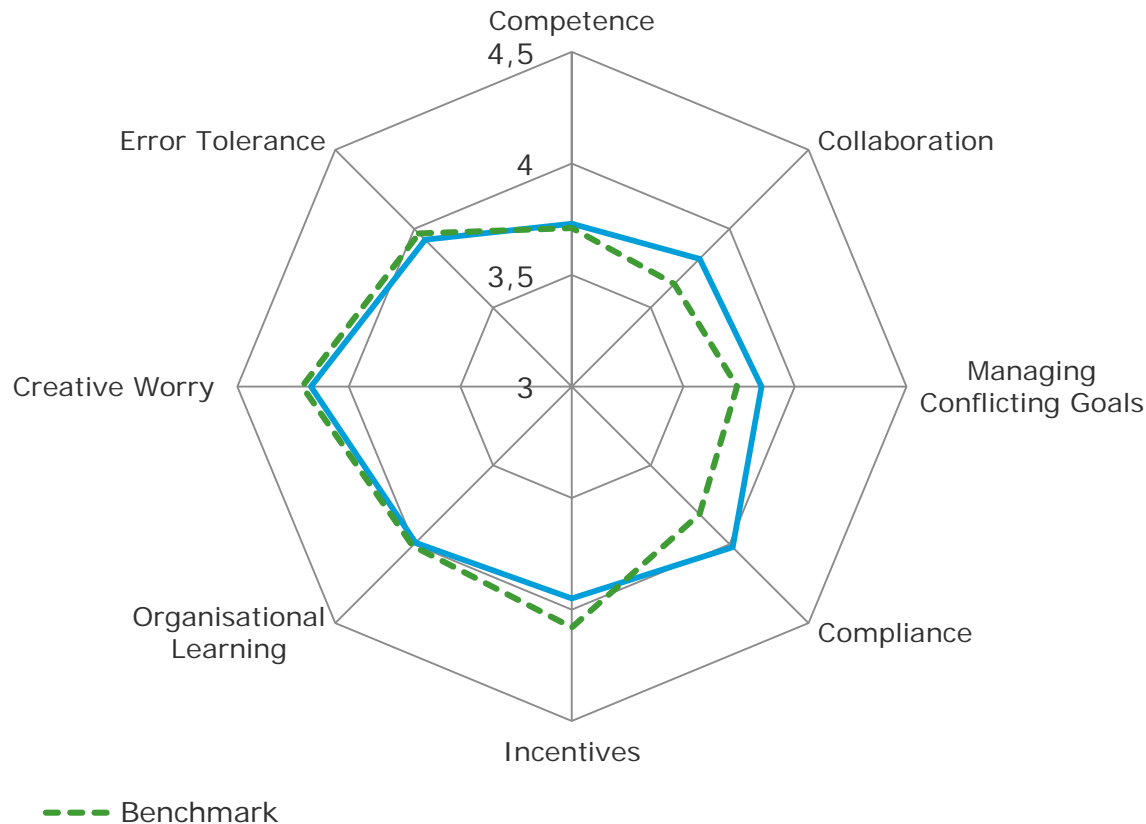
- In depth analysis (explain and confirm survey results)
- Explorative
- Time and resource consuming
- Results are harder to compare

Qualitative

Quantitative

The company scores higher than the average on Collaboration, Conflicting Goals and Compliance (EXAMPLE)

Company vs average score



Comments

- Compared to the average in offshore shipping, the company scores higher on Collaboration, Conflicting Goals and Compliance
- There is very little difference between the company scores and the average score in offshore shipping on Error Tolerance, Creative Worry and Organizational Learning
- The company scores lower on Incentives than the average

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Thank you for your attention

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SAFER, SMARTER, GREENER

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